

**REMARKS**

The Examiner required restriction under 35 U.S.C. § 121 but did not number the identified groups of allegedly distinct inventions. Solely to organize this response, and without acquiescing in the Examiner's identification of allegedly distinct inventions, Applicants have numbered the groups as follows:

- Group I. Claims 1-6, 21-24, 34, 35, and 44, allegedly drawn to 122 distinct inventions, wherein each invention is allegedly drawn to one particularly named SEQ ID NO: as claimed among SEQ ID NOS: 1-4, and 9-126, vectors, host cells, compositions, and methods of producing the polypeptide by using the particularly named SEQ ID NO:, classified in class 536, subclass 23.5, and class 435, subclasses 325 and 320.1.
- Group II. Claims 7, 8, and 16, allegedly drawn to a plurality of distinct inventions, wherein each invention is allegedly drawn to an ABCA5 probe or primer obtained from a particularly named SEQ ID NO: among SEQ ID NOS: 1-4, and 9-126, and wherein the elected probe or primer must be elected from claim 8 such that the elected probes or primers correspond only to the particularly named SEQ ID NO: among SEQ ID NOS: 1-4, and 9-126, which in turn codes for a particular ABCA5, classified in class 435, subclass 6.
- Group III. Claims 7, 9, and 16, allegedly drawn to a plurality of distinct inventions, wherein each invention is allegedly drawn to an ABCA6 probe or primer obtained from a particularly named SEQ ID NO:

among SEQ ID NOS: 1-4, and 9-126, and wherein the elected probe or primer must be elected from claim 9 such that the elected probes or primers correspond only to the particularly named SEQ ID NO: among SEQ ID NOS: 1-4, and 9-126, which in turn codes for a particular ABCA6, classified in class 435, subclass 6.

Group IV. Claims 7, 10, and 16, allegedly drawn to a plurality of distinct inventions, wherein each invention is allegedly drawn to an ABCA9 probe or primer obtained from a particularly named SEQ ID NO: among SEQ ID NOS: 1-4, and 9-126, and wherein the elected probe or primer must be elected from claim 10 such that the elected probes or primers correspond only to the particularly named SEQ ID NO: among SEQ ID NOS: 1-4, and 9-126, which in turn codes for a particular ABCA9, classified in class 435, subclass 6.

Group V. Claims 7, 11, and 16, allegedly drawn to a plurality of distinct inventions, wherein each invention is allegedly drawn to an ABCA10 probe or primer obtained from a particularly named SEQ ID NO: among SEQ ID NOS: 1-4, and 9-126, and wherein the elected probe or primer must be elected from claim 11 such that the elected probes or primers correspond only to the particularly named SEQ ID NO: among SEQ ID NOS: 1-4, and 9-126, which in turn codes for a particular ABCA10, classified in class 435, subclass 6.

Group VI. Claims 12 and 14, allegedly drawn to a plurality of distinct inventions, wherein each invention is allegedly drawn to a method

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of employing two primers obtained from a particularly named SEQ ID NO: among SEQ ID NOS: 1-4, and 9-126, and wherein the elected probes or primers must correspond only to the particularly named SEQ ID NO: among SEQ ID NOS: 1-4, and 9-126, classified in class 435, subclass 6.

- Group VII. Claims 13 and 15, allegedly drawn to a plurality of distinct inventions, wherein each invention is allegedly drawn to a set of two particularly named primers, which in turn must correspond to the elected invention of the linking claims, e.g., claims 12 and 14.
- Group VIII. Claims 17-20, allegedly drawn to a plurality of distinct inventions, wherein each invention is allegedly drawn to a method of employing a primer obtained from a particularly named SEQ ID NO:, which must correspond only to a particular named ABC among SEQ ID NOS: 1-4, and 9-126, and wherein the elected probes or primers must correspond only to the particularly named SEQ ID NO: chosen from SEQ ID NOS: 1-4, and 9-126, classified in class 435, subclass 6.
- Group IX. Claims 25-28, allegedly drawn to four distinct inventions of nucleic acids, wherein each invention is allegedly drawn to one particularly named SEQ ID NO: chosen from SEQ ID NOS: 5-8.
- Group X. Claims 29 and 39, allegedly drawn to four distinct inventions of polypeptides, wherein each invention is allegedly drawn to one particularly named SEQ ID NO: chosen from SEQ ID NOS: 5-8.

- Group XI. Claims 30-33, allegedly drawn to four distinct inventions of antibodies, wherein each invention is allegedly drawn to one particularly named SEQ ID NO: chosen from SEQ ID NOS: 5-8.
- Group XII. Claims 36 and 37, allegedly drawn to a plurality of distinct gene therapy methods, wherein each gene therapy invention is allegedly drawn to one particularly named SEQ ID NO: as claimed among SEQ ID NOS: 1-4, and 9-126, classified in class 514, subclass 44.
- Group XIII. Claim 38, allegedly drawn to a plurality of distinct protein therapy methods, wherein each therapy invention is allegedly drawn to one particularly named SEQ ID NO: as claimed among SEQ ID NOS: 5-8, classified in class 514, subclass 2.
- Group XIV. Claims 40-43, allegedly drawn to a plurality of distinct protein screening methods, wherein each screening invention is allegedly drawn to one particularly named SEQ ID NO: as claimed among SEQ ID NOS: 5-8, classified in class 435, subclass 7.1.

Applicants provisionally elect to prosecute Group I, claims 1-6, 21-24, 34, 35, and 44, with traverse.

The Examiner also requires Applicants to elect one particularly named SEQ ID NO:, which corresponds to a particular named gene in Group I for examination Office Action mailed October 3, 2003, at page 2. Applicants elect SEQ ID NO: 1, with traverse.

Applicants respectfully point out that SEQ ID NOS 1-4 are the nucleotide sequences of ABCA5, ABCA6, ABCA9, and ABCA10, respectively. Moreover, SEQ ID

NOS 9-47, 48-86, and 87-126 are the nucleotide sequences of the exons of the ABCA6, ABCA9, and ABCA10 genes, respectively. Therefore, in contrast to the Examiner's assertion that the claims of Group I are drawn to 122 allegedly distinct inventions, the claims are actually drawn to four genes that are organized in a single large cluster on chromosome 17q24. Specification at page 10, paragraph 25. Applicants believe that requiring election between a gene and the exons comprising that gene is inappropriate and respectfully suggest that the sequences in Group I be grouped as follows: SEQ ID NO: 1 (ABCA5); SEQ ID NOS: 2 and 9-47 (ABCA6); SEQ ID NOS: 3 and 48-86 (ABCA9); and SEQ ID NOS: 4 and 87-126 (ABCA10).

Moreover, Applicants traverse the requirement to elect a particular gene from Group I for examination. The ABCA5, ABCA6, ABCA9, and ABCA10 genes are structurally and functionally related to each other. *Id.*, at paragraphs 24 and 28. In fact, the genes show considerable conservation of amino acid sequence (particularly within the transmembrane and ATP-binding regions), have a similar gene organization, and are likely involved in the transport of cholesterol and lipids. *Id.*


Consistent with the above evidence indicating that the genes of the instant application are not isolated elements but constitute members of a single large cluster of genes on chromosome 17q24, Applicants have amended the claims to include new linking claim 45, which they believe is appropriately included in Group I. Support for the new claim may be found, for example, at page 10, paragraphs 24-25, of the as-file specification. No new matter has been added by the amendment. Applicants, therefore, request the reconsideration and withdrawal of the requirement for election of one particularly named SEQ ID NO: from Group I.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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